

**IN THE CLAIMS:**

1 1. (Previously Presented) A method of operating a switch for frames in a computer net-  
2 work, comprising:

3 receiving a frame (the received frame) at a port of said switch, said received  
4 frame containing one or more indicia of frame type designation;

5 deriving a virtual local area network (derived VLAN) value in response to said  
6 one or more indicia of frame type designation, said derived VLAN internal to said  
7 switch;

8 accessing a forwarding data base with said derived VLAN value to determine a  
9 destination address; and,

10 forwarding, in response to said derived VLAN value, said received frame to an  
11 output port for transmission to the destination.

1 2. (Original) The method of claim 1 further comprising, said forwarding step forwarding  
2 in response to said derived VLAN value and said destination.

1 3. (Original) The method of claim 1 wherein said indicia of frame type designation fur-  
2 ther comprises:  
3 a protocol type.

1 4. (Original) The method of claim 1 wherein said indicia of frame type designation fur-  
2 ther comprises:

3           a subnet value.

1   5. (Original) The method of claim 1 wherein said indicia of frame type designation fur-  
2   ther comprises:

3           a virtual local area network established in said computer network.

1   6. (Original) The method of claim 1 wherein said indicia of frame type designation fur-  
2   ther comprises: an IP source address.

1   7. (Original) The method of claim 1 wherein said indicia of frame type designation fur-  
2   ther comprises:

3           an index value associated with a port at which said received frame was received.

1   8. (Original) The method of claim 1 further comprising:

2           deriving a MAC address from said derived VLAN value and forwarding said re-  
3   ceived frame to a port for transmission to a destination having said MAC address.

1   9. (Previously Presented) A switch to forward frames in a computer network, compris-  
2   ing:

3           a port to receive a frame (the received frame), said received frame containing one  
4   or more indicia of frame type designation;

5 a parsing engine to derive a virtual local area network (derived VLAN) value in  
6 response to said one or more indicia of frame type designation, said derived VLAN inter-  
7 nal to said switch;

8 a forwarding data base having said derived VLAN value as input and a destina-  
9 tion address as output; and,

10 an output port to transmit said received frame, in response to said derived VLAN  
11 value, for transmission to said destination address.

1 10. (Original) The apparatus as in claim 9 further comprising:

2 a forwarding engine for forwarding said received frame in response to said de-  
3 rived VLAN value and said destination address.

1 11. (Previously Presented) A computer readable media containing instructions for the  
2 practice of operating a switch for frames in a computer network, comprising:

3 receiving a frame (the received frame) at a port of said switch, said received  
4 frame containing one or more indicia of frame type designation;

5 deriving a virtual local area network (derived VLAN) value in response to said  
6 one or more indicia of frame type designation, said derived VLAN internal to said  
7 switch;

8 accessing a forwarding data base with said derived VLAN value to determine a  
9 destination address; and,

10 forwarding, in response to said derived VLAN value, said received frame to an output  
11 port for transmission to the destination.

1 12. (Cancelled)

1    13. (Previously Presented) A method of operating a switch for frames in a computer net-  
2    work comprising:  
3        using one or more indicia of frame type designation found in the a received frame  
4    to derive a virtual local area network (derived VLAN) value, said derived VLAN internal  
5    to said switch;  
6        using the derived VLAN value in making forwarding decisions.

1    14. (Original) The method of claim 13 further comprising:  
2        controlling broadcast domains in the computer network by forwarding in response  
3    to the derived VLAN value.

1    15. (Previously Presented) The method of claim 13 further comprising:  
2        using an indicia of a receiving port in constructing the derived VLAN value.

1    16. (Previously Presented) A computer readable media containing instructions for the  
2    practice of operating a switch for frames in a computer network comprising:  
3        using one or more indicia of frame type designation found in the received frame  
4    to derive a virtual local area network (derived VLAN) value, said derived VLAN internal  
5    to said switch;  
6        using the derived VLAN value in making forwarding decisions.

1    17. (Cancelled)

1 Please add new claims 18 *et al.*

1 18. (New) A method of operating a switch for frames in a computer network, comprising:  
2 receiving a frame (the received frame) at a port of said switch, said received  
3 frame containing one or more indicia of frame type designation;  
4 deriving a virtual local area network (derived VLAN) value in response to said  
5 one or more indicia of frame type designation;  
6 accessing a forwarding data base with said derived VLAN value to determine a  
7 destination address; and,  
8 forwarding, in response to said derived VLAN value, said received frame to an  
9 output port for transmission to the destination.

1 19. (New) A switch to forward frames in a computer network, comprising:  
2 a port to receive a frame (the received frame), said received frame containing one  
3 or more indicia of frame type designation;  
4 a parsing engine to derive a virtual local area network (derived VLAN) value in  
5 response to said one or more indicia of frame type designation;  
6 a forwarding data base having said derived VLAN value as input and a destina-  
7 tion address as output; and,  
8 an output port to transmit said received frame, in response to said derived VLAN  
9 value, for transmission to said destination address.

1 20. (New) An apparatus to forward frames in a computer network, comprising:  
2 means for receiving a frame (the received frame) at a port of said switch, said re-  
3 ceived frame containing one or more indicia of frame type designation;  
4 means for deriving a virtual local area network (derived VLAN) value in response  
5 to said one or more indicia of frame type designation;  
6 means for accessing a forwarding data base with said derived VLAN value to de-  
7 termine a destination address; and,

8 means for forwarding, in response to said derived VLAN value, said received  
9 frame to an output port for transmission to the destination.

1 21. (New) A system for sending frames in a computer network, comprising:  
2 a plurality of switches to derive a virtual area network (derived VLAN) in re-  
3 sponse to one or more indicia of frame type designation; and  
4 a plurality of trunking ports to carry the derived VLAN across trunking links.

1 22. (New) A method for sending frames in a computer network, comprising:  
2 deriving a virtual area network (derived VLAN) in a plurality of switches, the de-  
3 rived VLAN created in response to one or more indicia of frame type designation; and  
4 carrying the derived VLAN across trunking links using a plurality of trunking  
5 ports.

1 23. (New) An apparatus for sending frames in a computer network, comprising:  
2 means for deriving a virtual area network (derived VLAN) in a plurality of  
3 switches, the derived VLAN created in response to one or more indicia of frame type des-  
4 ignation; and  
5 means for carrying the derived VLAN across trunking links.